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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/578,890 | 01/18/2007 | Keith Froggatt | 1032899-000031 | 5020 |

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BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

| EXAMINER | |
|---|---|
| STELLING, LUCAS A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1797 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 03/18/2009 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/578,890 | FROGGATT, KEITH | |
| | Examiner | Art Unit | |
| | Lucas Stelling | 1797 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *11 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *40-59* is/are pending in the application.

4a) Of the above claim(s) *50-59* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *40-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5-11-06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election **without traverse** of Group 1, claims 46-49 in the reply filed on 2-20-09 is acknowledged. Accordingly, claims 40-49 are pending and examined on the merits and claims 50-59 are withdrawn as drawn to non-elected inventions.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 40 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claim 40, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

5. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely

exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 42 recites the broad recitation "contoured surface," and the claim also recites "which may include projections which may be in the form of spikes" which is the narrower statement of the range/limitation. For purposes of examination claim 42 will be interpreted to require only the broadest limitation of "contoured surfaces."

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 40, 41, 46 and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by WIPO PCT Application Publication No. WO93/00298 to Steger ("Steger") as evidenced by U.S. Patent No. 5,198,118 to Heskett ("Heskett").

8. As to claim 40, Steger teaches a water distribution system **(10)**, including one or more circulation members **(29)**, such as a shower assembly **(See title)** through which water can pass, wherein one or more decontaminating members are restrainably located **(See page 8 lines 10-15, and page 4 lines 29-31)** within the or each circulating member and freely movable there **(See page 6 lines 11-26)**, the or each decontaminating member having an outer surface of an antibacterial material **(page 4**

**line 35 -- page 5 line 2; look to Heskett col. 3 lines 25-35 for further evidence that copper, zinc, and alloys thereof have bactericidal properties)**.

9. As to claim 41, because the particles are freely movable they will inherently collect, under the forces of gravity, in the lowermost part of the chamber, when no water is passing through the device because they are metal.

10. As to claim 46, a filter means is provided downstream for restraining the decontaminating members **(See 35 Fig. 4 and page 8 lines 10-15)**.

11. As to claim 48, the filter is mesh **(See page 8 lines 14 and line 27)**.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 42, 44, 46, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steger as evidenced by Heskett.

15. As to claim 42, Steger teaches that the particles are finely divided metal alloy. It would have been obvious to a person of ordinary skill in the art to provide a contoured surface to the finely divided metal, because it is known to those skilled in the art that a surface with contours allows for greater surface contact and more efficient decontaminating.

16. As to claim 44, Steger teaches that the particles are finely divided metal which are freely movable in the chamber. The water also creates a cyclonic flow which causing intermingling between the water and the particulate **(see page 6 lines 15-20)**. This constantly circulating intermingling creates a plurality of instantaneous passages through the decontaminating members, through which any particular volume of water may travel.

17. As to claim 45, Steger teaches that the particles are copper, zinc or mixtures thereof **(Steger page 6 lines 1-3)**. The particles will sink in the water because they are metal.

18. As to claim 47, Steger as evidenced by Heskett teach the device of claim 46, but Steger is silent as to the material used to construct the filter. However, it is within the skill and knowledge of a person of ordinary skill in the art to construct the filter mesh from the same material as the decontaminating members, which in this case is copper, zinc, a mixture thereof, or an alloy, in order to prevent an electrochemical reaction between the filter and the members, to provide extra decontamination, and to mitigate mechanical wear and erosion of either the members or the mesh based on differing Mohs hardnesses, which could occur if different materials were used. Therefore, it

would have been obvious to a person of ordinary skill in the art to use copper, zinc, a mixture thereof, or an alloy for producing the filter in order to prevent an electrochemical reaction, provide extra decontamination, and/or to mitigate mechanical wear and erosion.

19. Claim 43 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steger as evidenced by Heskett as applied to claim 40 above, and further in view of U.S. Patent No. 5,008,011 to Underwood ("Underwood").

20. As to claim 43, Steger as modified by Heskett teach the use of finely divided decontaminating members, but do not teach that the members are in the form of a body of mesh. Underwood teaches the use of a mesh of copper-zinc alloy as an alternative to fine particles **(See Underwood col. 3 lines 25-35, random oriented strands reads on a "mesh" as applicant does not require the mesh to be woven)**. Underwood teaches that the use of a mesh treatment member aids in the prevention of treatment agent washing out of the housing **(See Underwood col. 3 lines 34-36)**. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to provide a mesh treatment agent in the chamber of Steger in order to aid in preventing the treatment agent from washing out of the housing.

21. As to claim 49, Steger as evidenced by Heskett teach the system of claim 48, but do not clearly describe how the body of mesh is attached to the circulation member. Steger appears to show that the mesh body has a washer and is physically restrained by a lip within the housing **(See Steger Fig. 4)**, which may use friction to fit snuggly.

Notwithstanding, Underwood teaches the use of a friction fitting, which uses water pressure to tightly engage the housing **(See Underwood Fig. 3 and col. 3 lines 1-24)**. A person of ordinary skill would also know that a friction fitting allows for minute independent expansion and contraction of the separate parts. It is also within the skill of a person to use the friction fitting of Underwood in order to obviate the need for glue, cement, or solder which can deteriorate from dissolving in the water, and also be breached by the frequent and rapid temperature changes that the running water imparts. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to select a friction fitting for the filter mesh based on the benefit it provides over alternate means of affixing the mesh to the housing.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Stelling whose telephone number is (571)270-3725. The examiner can normally be reached on Monday through Thursday 12:00PM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

las 3-13-09

/Matthew O Savage/
Primary Examiner, Art Unit 1797